

ABSTRACT

DISTANCE-ESTIMATION METHOD FOR A TRAVELING OBJECT SUBJECTED TO DYNAMIC PATH CONSTRAINTS

This method allows the calculation, using a terrain elevation database, of a map of the distances of the points accessible to a mobile object subjected to dynamic constraints evolving with its time of travel, for example an aircraft having an imposed vertical flight profile, the distances being measured solely according to paths achievable by the mobile object. It implements a propagation-based distance transform which catalogs the achievable paths going from a goal point whose distance is to be estimated to a source point which is the origin of the distance measurements and likens the distance of the goal point to the length of the shortest achievable path or paths.

Fig. 3